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## The Relationship between Intellectual Capital and Corporate Performance

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### Abstract

Intellectual capital (IC) is organisational intangible asset which is frequently associated with performance. IC is commonly categorised into three core component: human capital, structural capital and relational capital. This study aims to explore the inclusion of spiritual capital as a new component alongside with the other three components, while attempting to determine the association of the IC on corporate performance of Malaysian public listed companies (PLCs). Findings revealed that generally, Malaysian PLCs do acknowledge the existence or importance of IC in their organisation. In addition, the majority of the PLCs adopt Key Performance Indicator (KPI) to measure their department's performance. Importantly, the findings confirm that all four IC components has a significant positive relationship with corporate performance of Malaysian PLCs. Surprisingly, relational capital emerged as IC component that has the strongest relationship with corporate performance, followed by spiritual capital, structural capital and human capital. This result suggests that IC is vital to business success and performance. Importantly, spiritual capital needs to be considered in IC when measuring performance. Finally, this study proposes that future research should investigate the influence of the new IC on corporate performance within diverse industry for example, to focus on high IC industries such as trading or services, finance or technology.

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*Keywords:* Intellectual capital; Spiritual capital; Corporate performance

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### 1. Introduction

Intellectual capital (IC) is an important intangible asset in today's business, particularly in current knowledge intensive economy which also relies heavily on technology. IC has been frequently recognized as invaluable intangible asset which is managed and utilized to stimulate innovativeness, creativity, competitive edge, value creation and boost corporate performance [1,2,3,4,5,6,7]. According to Brooking [8], IC refers to a set of intangible assets that can be stirred to improve organization's success. Indeed,

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with appropriate combination of IC values such as knowledge, expertise, financial resources, operational strategy and good rapport with stakeholders, it could potentially boost greater corporate performance.

Sullivan [9] highlights that global companies such as Microsoft, Netscape and 3M create value thus yield huge revenue as a result of their “brain power” which is IC. According to Raja Adzrin *et al.* [10] companies could gain and retain competitive advantage when there are great human talents, capabilities, boundless innovations and creativity. Indeed, the notion of IC influences corporate performance is consistent with the resource-based view theory which advocates that a company should identify and manage their resources (tangible or intangible) effectively to achieve greater performance [11,10,22]. However, IC is not a well known concept in Malaysia. Only human capital is among widely known IC component in Malaysia.

IC is defined by Roos *et al.* [12] as “all non-monetary and non-physical resources that are fully or partly controlled by the organization and that contribute to the organization’s value creation”. IC is commonly classified into three components three components [12,13,9,6,7]:

- (i) Human capital which includes knowledge, professional skills and experiences, expertise, educational level and creativity of employees.
- (ii) Structural capital which includes innovation capital, databases, software systems, distribution networks, organizational charts, corporate culture, strategies and policies.
- (iii) Relational capital which includes marketing channels, customer relationships, relationships with suppliers, customer loyalty, governmental and industrial networking, intermediaries or partners.

Importantly, this study attempts to empirically evaluate the inclusion of spiritual capital as one of IC component. Zohar and Marshall [14] defined spiritual capital as “the wealth that helps sustain future humanity and wealth that nourishes and sustain human spirit”. Spiritual capital includes values such as morale, faith, honesty, ethics, desire and motivation, commitment, self-esteem, enthusiasm and sincerity [14,15,16]. Spiritual capital is essential in individual as well as organization which could influence the way an entity or company is managed, making sure business operations run in accordance with law and standards, being truthful and honest in financial matters, etc. of which would eventually improves corporate performance. Multi-million successful companies such as Merck Pharmaceutical, Coca-cola, Hewlett-Packard and Starbucks are example of companies that achieved great wealth by integrating spiritual values in their business [14]. Hence, this study aims to examine whether the inclusion of spiritual capital in IC concept has a positive influence on corporate performance.

Undeniably, IC should be properly managed and utilized to instil innovativeness, promotes wealth creation and offer a competitive edge. These criteria are critical for companies to improve performance, sustain profitability and keep pace with competitiveness particularly in the current unpredictable economy. This study has two aims: (1) to explore the perceptions on the overview of IC practices in Malaysian PLCs; (2) to determine the relationship between IC and corporate performance across various industries in Malaysian PLCs while attempts to determine which IC component(s) has the strongest association. IC is measured through its four components which are human capital, structural capital, relational capital and spiritual capital. While, corporate performance is tapped to include elements such as financial performance, nonfinancial performance, overall business performance and the company’s ability to survive during economic uncertainties.

## 2. Research Methodology

This study uses questionnaire survey as the data collection method. A self-administered questionnaire survey was mailed to the respondents which requires them to rate their opinions based on given statements using a 7-point Likert Scale ranging from 1 (strongly disagree) to 7 (strongly agree). This same method was also adopted in IC research such as Bontis *et al.* [1], Usoff *et al.* [17], Saudah [4] and

Tayles *et al.* [6]. The questionnaire comprises three parts which was designed to capture information on IC practices of Malaysian PLCs, the perception on the relationship of IC and corporate performance and the respondent's demographic information.

The sample in this study comprised of Malaysian PLCs which operates with an in-house internal audit function (IAF). Internal auditors (Chief Audit Executives, Audit Managers or the Head of Internal Audit) are selected as respondents based on their capacity to provide their opinions and extensive knowledge on the company's business operation [17]. The sample selected in this study is representative of the entire population. 339 sets of questionnaire were mailed out to Malaysian PLCs that established an in-house IAF. Out of 146 questionnaires returned (43.06% return rate), two were discarded due to too many missing values (more than 50%) thus leaving only 144 usable cases for analysis in the study.

### 3. Research Findings

#### 3.1 Frequency Analysis

Table 1 presents the frequency analysis of the five items from the questionnaire survey which was designed to capture the information on IC practices of Malaysian PLCs. All items had 100% response with most responses marked on a 'Yes' response, suggesting that the acknowledgment of IC is quite high. The result clearly indicates that Malaysian PLCs do manage and report IC. 63.9% respondents agree that IC is reported in the company and 52.1% discloses IC information in the annual report. Although the over half indicates that IC is being in practice, however, this signals that IC reporting is yet perceived as important in Malaysian PLCs.

From this survey, it is also found that only 55.6% companies' uses financial measures such as Return on Asset (ROA), Return on Equity (ROE) and Profit before Tax (PBT) to measure performance. While, only 54 companies out of 144 use Balance Score Card (BSC) to measure their department's performance. Surprisingly, 123 companies which are 85.4% of the respondents adopt Key Performance Indicator (KPI) as a performance measurement tool in their organisation. At present, KPI is one of the most frequently used tools to measure performance. Inevitably, this signals that IC is recognized and managed in Malaysian PLCs, unfortunately, not specifically within the proper IC management system.

Table 1: Frequency Analysis for Items Measuring IC Practices

	Yes			No	
	N	f	%	f	%
Report IC internally	144	92	63.9	52	36.1
Discloses IC in the annual report	144	75	52.1	69	47.9
Assess IC using financial measures (e.g. ROA, ROE, PBT)	144	80	55.6	64	44.4
Use BSC to measure department's performance	144	54	37.5	90	62.5
Use KPI to measure department's performance	144	123	85.4	21	14.6

Note: N=Number of responses; f=frequency; %=percentage

#### 3.2 Pearson Correlation

Pearson correlation is used to analyse the interval-scaled (Likert) variables in order to measure the association between two variables with correlation coefficient value ranging from -1.00 to +1.00

[18,19,20]. Table 1 illustrates the Pearson correlation results which aimed to determine the relationship amongst the IC variables and corporate performance, thus recognize its direction, either positive or negative relationship. The finding shows that there is a significant positive relationship between human capital and structural capital ( $r = 0.789$ ,  $p < 0.01$ ), structural capital and relational capital ( $r = 0.720$ ,  $p < 0.01$ ) and spiritual capital and relational capital ( $r = 0.747$ ,  $p < 0.01$ ). Importantly, all IC variables are in positive significant relationship with corporate performance, i.e. human capital and corporate performance ( $r = 0.533$ ,  $p < 0.01$ ), structural capital and corporate performance ( $r = 0.562$ ,  $p < 0.01$ ), relational capital and corporate performance ( $r = 0.727$ ,  $p < 0.01$ ) and spiritual capital and corporate performance ( $r = 0.620$ ,  $p < 0.01$ ). Findings also revealed that relational capital has the strongest relationship with corporate performance, followed by spiritual capital, structural capital and finally, human capital. In short, the result indicates that IC is believed as important and strongly related to a superior corporate performance.

Table 2: Pearson Correlations between IC Components and Corporate Performance

	HC	SC	RC	SpC	CP
HC	1.000	0.789**	0.650**	0.671**	0.533**
SC		1.000	0.720**	0.766**	0.562**
RC			1.000	0.747**	0.727**
SpC				1.000	0.620**
CP					1.000

\*\* Correlation is significant at the 0.01 level (2-tailed); HC=Human Capital; SC=Structural Capital; RC=Relational Capital; SpC= Spiritual Capital; CP=Corporate Performance

#### 4. Discussion and Conclusion

This study provides an understanding on the recognition of IC and its importance from the perspective of the heads of internal audit of Malaysian PLCs. The frequency analysis provides evidence that generally Malaysian PLCs do acknowledge the existence of IC and in fact are measuring IC though not rigorously as in the proper IC management system. While most over half PLCs do use financial measures to assess IC, an overwhelming majority of 85.4% uses of KPI to measure the department's performance. The overall correlation analysis results clearly show that all four IC components do have a significant positive relationship with corporate performance. The evidence supports earlier studies of Bontis *et al.* [1], Tayles *et al.* [6] and Irene and Hooi [21] which also supports the RBV theory on channelling organizational resources to an enhanced performance.

Though generally the respondents agreed that high IC indicates a higher performance, surprisingly, relational capital is the most influential, followed by spiritual capital, structural capital and human capital. This is inconsistent with findings by Bontis *et al.* [1] which concluded that human capital is the most important IC in Malaysian companies. This difference could be due to the perception of heads of internal audit that must be truthful and honest when giving opinions. The nature and varying levels of IC in both high IC and low IC industries could also influence the result of this study. Importantly, findings proved that spiritual capital is an important component of IC. Finally, this study has its limitation where it does not attempt to make comparison between high IC (IC intensive) companies and low IC companies. It would be interesting to examine the different practices and relationship between IC and corporate performance of high IC companies which includes the consumer products, trading and services, finance and technology [17,6].

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